NEUROPSYCHOLOGIA

AN INTERNATIONAL JOURNAL IN BEHAVIOURAL AND COGNITIVE NEUROSCIENCE

Volume Contents, Author Index and Key Word Index

Volume 33, 1995

EDITOR-IN-CHIEF **G. BERLUCCHI,** *Verona*

BOARD OF EDITORS

J. BURES, *Prague*
S. CORKIN, *Cambridge, MA*
R. FRACKOWIAK, *London*
A. M. GALABURDA, *Boston*
S. D. IVERSEN, *Oxford*
M. JEANNEROD, *Lyon*
M. A. JEEVES, *St Andrews*
Y. MIYASHITA, *Tokyo*
L. G. UNGERLEIDER, *Bethesda*

Pergamon

NEUROPSYCHOLOGIA

Editor-in-Chief

Prof. G. BERLUCCHI, Dipartimento di Scienze Neurologiche e della Visione, Sezione di Fisiologia Umana, Strada Le Grazie 8, I-37134 Verona, Italy (Fax: 39 45 580881).

Board of Editors

Prof. J. BURES, Institute of Physiology, Czech Academy of Sciences, Videnska 1083, 142 20 Prague 4-KRC, Czech Republic.

Prof. S. CORKIN, Department of Brain and Cognitive Sciences, E10-003A, Massachusetts Institute of Technology, Cambridge, MA 02139, U.S.A.

Prof. R. FRACKOWIAK, PET Neurosciences Group III, Cyclotron Unit, MRC Clinical Sciences Centre, Royal Postgraduate Medical School, Hammersmith Hospital, Du Cane Road, London W12 0NN, U.K.

Prof. A. M. GALABURDA, Neurological Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215, U.S.A.

Prof. S. D. IVERSEN, Department of Experimental Psychology, University of Oxford, South Parks Road, Oxford OX1 3UD, U.K.

Prof. M. JEANNEROD, Laboratoire de Neuropsychologie Expérimentale, U. 94 de l'I.N.S.E.R.M., 16, avenue du Doyen Lépine, 69500 Bron, France.

Prof. M. A. JEEVES, Department of Psychology, University of St Andrews, St Andrews, Fife KY16 9JU, U.K.

Prof. Y. MIYASHITA, Department of Physiology, The University of Toyko, School of Medicine Hongo Bunkyo-ku, Tokyo 113, Japan.

Prof. L. G. UNGERLEIDER, Laboratory of Neuropsychology, National Institute of Mental Health, Building 9, Room 1N107, Bethesda, MD 20892, U.S.A.

Board of Associate Editors

C. BARRY, Cardiff
M. BEHRMANN, Pittsburgh, PA
E. BISIACH, Milan
J. L. BRADSHAW, Clayton, Victoria
M. P. BRYDEN, Waterloo, Ontario
A. CARAMAZZA, Cambridge, MA
L. S. CERMAK, Boston, MA
M. C. CORBALLIS, Auckland
N. ETCOFF, Boston, MA
G. GAINOTTI, Rome
M. E. GOLDBERG, Bethesda, MD
G. GOLDENBERG, Vienna
M. A. GOODALE, London, Ontario
CH. GROSS, Princeton, NJ
C. R. HAMILTON, College Station, TX
C. HEYWOOD, Durham
M. KUTAS, La Jolla, CA
J. LEVY, Chicago, IL
J. C. MARSHALL, Oxford
C. A. MARZI, Verona
A. R. MAYES, Sheffield
A. D. MILNER, St Andrews
J. MORAIS, Brussels
M. MOSCOVITCH, Toronto, Ontario
M. PETERS, Guelph, Ontario
M. PETRIDES, Montreal, Quebec
M. POSNER, Eugene, OR
R. RAFAL, Martinez, CA
G. RATCLIFF, Pittsburgh, PA
G. RIZZOLATTI, Parma
T. W. ROBBINS, Cambridge
M. RUGG, St Andrews
C. M. TEMPLE, Colchester
D. TRANEL, Iowa City, IA
C. TREVARTHEN, Edinburgh
L. WEISKRANTZ, Oxford
K. WILLMES, Aachen
R. J. ZATORRE, Montreal, Quebec
J. ZIHL, Munich

Production Editor: ALISON S. PRICKETT

Published monthly

Publishing & Advertising Offices

Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K.

Annual Subscription Rates 1995

Annual Institutional Subscription Rates 1995: North, Central and South America U.S. $1155, Rest of World £775. Associated Personal Subscription Rates are available on request for those whose institutions are library subscribers. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice.

Subscription enquiries from customers in North America should be sent to: Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A., and from the remainder of the world to: Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K. Tel.: 01865-843000.

Second Class Postage Paid at Newark, NJ. Postmaster send address corrections to *Neuropsychologia*, c/o Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.

Back Issues

Back issues of all previously published volumes are available direct from Elsevier Science offices (Oxford and New York). Complete volumes and single issues can be purchased for 1990–1994. Earlier issues are available in high quality photo-duplicated copies as complete volumes only. Back volumes on microfilm are available from UMI, 300 North Zeeb Road, Ann Arbor, MI 48106, U.S.A.

Drug and Dosage Selection

The authors have made every effort to ensure the accuracy of the information herein, particularly with regard to drug selection and dose. However, appropriate information sources should be consulted, especially for new or unfamiliar drugs or procedures. It is the responsibility of every practitioner to evaluate the appropriateness of a particular opinion in the context of actual clinical situations and with due consideration to new developments.

Copyright © 1995 Elsevier Science Ltd

Volume 33, 1995

CONTENTS

Number 1

A. M. OWEN, B. J. SAHAKIAN, J. SEMPLE, C. E. POLKEY and T. W. ROBBINS	1	Visuo-spatial short-term recognition memory and learning after temporal lobe excisions, frontal lobe excisions or amygdalo-hippocampectomy in man
P. AUZOU, F. EUSTACHE, P. ETEVENON H. PLATEL, P. RIOUX, J. LAMBERT, B. LECHEVALIER, E. ZARIFIAN and J. C. BARON	25	Topographic EEG activations during timbre and pitch discrimination tasks using musical sounds
J. R. KERSHNER and N. A. GRAHAM	39	Attentional control over language lateralization in dyslexic children: Deficit or delay?
E. E. BRODIE and L. E. L. PETTIGREW	53	Spatial field advantages for tactile line bisection as a function of hemispheric specialisation inferred from dichotic listening
G. GOLDENBERG	63	Imitating gestures and manipulating a mannikin — The representation of the human body in ideomotor apraxia
G. VALLAR, M. L. RUSCONI, S. BAROZZI, B. BERNARDINI, D. OVADIA, C. PAPAGNO and A. CESARANI	73	Improvement of left visuo-spatial hemineglect by left-sided transcutaneous electrical stimulation
J. SNITZER REILLY, J. STILES, J. LARSEN and D. TRAUNER	83	Affective facial expression in infants with focal brain damage
F. GHIKA-SCHMID, G. ASSAL, N. DE TRIBOLET and F. REGLI	101	Klüver–Bucy syndrome after left anterior temporal resection
M. KOIVISTO and M. LAINE	115	Lateralized free-association priming: Implications for the hemispheric organization of semantic memory
Notes		
P. M. J. POLLUX, A. WESTER and E. H. F. DE HAAN	125	Random generation deficit in alcoholic Korsakoff patients
D. BIBAWI, B. CHERRY and J. B. HELLIGE	131	Fluctuations of perceptual asymmetry across time in women and men: Effects related to the menstrual cycle

Number 2

D. LAPIERRE, C. M. J. BRAUN and S. HODGINS	139	Ventral frontal deficits in psychopathy: Neuropsychological test findings
G. DI PELLEGRINO and E. DE RENZI	153	An experimental investigation on the nature of extinction
L. RICHARDS and C. CHIARELLO	171	Depth of associated activation in the cerebral hemispheres: Mediated versus direct priming
F. DORICCHI, C. ARMATI, G. MARTORANO and C. VIOLANI	181	Generation of skeletal and multipart mental visual images in the cerebral hemispheres: A study in normal subjects

L. X. BLONDER, A. F. BURNS, D. BOWERS, R. W. MOORE and K. M. HEILMAN	203	Spontaneous gestures following right hemisphere infarct
F. VIALLET, G. VUILLON-CACCIUTTOLO, E. LEGALLET, B. BONNEFOI-KYRIACOU and E. TROUCHE	215	Bilateral and side-related reaction time impairments in patients with unilateral cerebral lesions of a medial frontal region involving the supplementary motor area
K. T. CIESIELSKI, J. E. KNIGHT, R. J. PRINCE, R. J. HARRIS and S. D. HANDMAKER	225	Event-related potentials in cross-modal divided attention in autism
G. DALLA BARBA, V. PARLATO, A. IAVARONE and F. BOLLER	247	Anosognosia, intrusions and 'frontal' functions in Alzheimer's disease and depression

Number 3

J. DUNCAN, P. BURGESS and H. EMSLIE	261	Fluid intelligence after frontal lobe lesions
D. ROSE and E. PRICE	269	Functional separation of global and local stereopsis investigated by cross-adaptation
M. L. SMITH, G. LEONARD, J. CRANE and B. MILNER	275	The effects of frontal- or temporal-lobe lesions on susceptibility to interference in spatial memory
J. ZIHL	287	Visual scanning behavior in patients with homonymous hemianopia
J. HORNAK	305	Perceptual completion in patients with drawing neglect: Eye-movement and tachistoscopic investigations
M. HABIB, G. DAQUIN, L. MILANDRE, M. L. ROYERE, M. REY, A. LANTERI, G. SALAMON and R. KHALIL	327	Mutism and auditory agnosia due to bilateral insular damage—Role of the insula in human communication
P. VENDRELL, C. JUNQUÉ, J. PUJOL, M. A. JURADO, J. MOLET and J. GRAFMAN	341	The role of prefrontal regions in the Stroop task
Notes		
G. DI PELLEGRINO	353	Clock-drawing in a case of left visuo-spatial neglect: A deficit of disengagement?
M. MITRUSHINA, T. FOGEL, L. D'ELIA, C. UCHIYAMA and P. SATZ	359	Performance on motor tasks as an indication of increased behavioral asymmetry with advancing age
J. G. PHILLIPS, E. CHIU, J. L. BRADSHAW and R. IANSEK	365	Impaired movement sequencing in patients with Huntington's disease: A kinematic analysis
H.-O. KARNATH and M. FETTER	371	Ocular space exploration in the dark and its relation to subjective and objective body orientation in neglect patients with parietal lesions
G. BINETTI, E. MAGNI, A. PADOVANI, S. F. CAPPA, A. BIANCHETTI and M. TRABUCCHI	379	Release from proactive interference in early Alzheimer's disease
R. CATERINI, G. DELHOMME, C. DESCHAUMES-MOLINARO, A. DITTMAR, S. ECONOMIDÈS and E. VERNET-MAURY	385	Increased activation as a limiting factor of performance in sharp shooters
Book Reviews	391	
Announcement	393	

Number 4

P. MESSERLI, A. PEGNA and N. SORDET	395	Hemispheric dominance for melody recognition in musicians and non-musicians
P. J. SNYDER, R. M. BILDER, H. WU, B. BOGERTS and J. A. LIEBERMAN	407	Cerebellar volume asymmetries are related to handedness: A quantitative MRI study
B. LAENG and M. PETERS	421	Cerebral lateralization for the processing of spatial coordinates and categories in left- and right-handers
J. R. HODGES and K. PATTERSON	441	Is semantic memory consistently impaired early in the course of Alzheimer's disease? Neuroanatomical and diagnostic implications
N. SOROKER, N. CALAMARO and M. MYSLOBODSKY	461	"McGurk illusion" to bilateral administration of sensory stimuli in patients with hemispatial neglect
M. D. RUGG, C. J. C. COX, M. C. DOYLE and T. WELLS	471	Event-related potentials and the recollection of low and high frequency words
C. VAN PETTEN and H. RHEINFELDER	485	Conceptual relationships between spoken words and environmental sounds: Event-related brain potential measures
N. M. HUNKIN, A. J. PARKIN, V. A. BRADLEY, E. H. BURROWS, F. K. ALDRICH, A. JANSARI and C. BURDON-COOPER	509	Focal retrograde amnesia following closed head injury: A case study and theoretical account

Number 5

R. D. LANE, L. S. KIVLEY, M. A. DU BOIS, P. SHAMASUNDARA and G. E. SCHWARTZ	525	Levels of emotional awareness and the degree of right hemispheric dominance in the perception of facial emotion
R. KOWNER	539	Laterality in facial expressions and its effect on attributions of emotion and personality: A reconsideration
M. O. RUSS and L. SEGER	561	The effect of task complexity on reaction times in memory scanning and visual discrimination in Parkinson's disease
G. M. JACKSON, S. R. JACKSON, J. HARRISON, L. HENDERSON and C. KENNARD	577	Serial reaction time learning and Parkinson's disease: Evidence for a procedural learning deficit
K. SEKI, M. YAJIMA and M. SUGISHITA	595	The efficacy of kinesthetic reading treatment for pure alexia
G. LEONARD and B. MILNER	611	Recall of self-generated arm movements by patients with unilateral cortical excisions
V. GOEL and J. GRAFMAN	623	Are the frontal lobes implicated in "planning" functions? Interpreting data from the Tower of Hanoi
Notes		
A. CHATTERJEE, L. M. MAHER and K. M. HEILMAN	643	Spatial characteristics of thematic role representation
D. W. ZAIDEL, A. C. CHEN and C. GERMAN	649	She is not a beauty even when she smiles: Possible evolutionary basis for a relationship between facial attractiveness and hemispheric specialization
Book Reviews	657	
Erratum	659	

Number 6

M. J. FARAH, K. L. LEVINSON and K. L. KLEIN	661	Face perception and within-category discrimination in prosopagnosia
S. DELLA SALA, S. MUGGIA, H. SPINNLER and M. ZUFFI	675	Cognitive modelling of face processing: Evidence from Alzheimer patients
P. MARUFF and J. CURRIE	689	An attentional grasp reflex in patients with Alzheimer's disease
S. CHOKRON and M. IMBERT	703	Variations of the egocentric reference among normal subjects and a patient with unilateral neglect
L. RÖNNQVIST	713	A critical examination of the Moro response in newborn infants—Symmetry, state relation, underlying mechanisms
P. DOMINEY, J. DECETY, E. BROUSSOLLE, G. CHAZOT and M. JEANNEROD	727	Motor imagery of a lateralized sequential task is asymmetrically slowed in hemi-Parkinson's patients
E. L. WILDING, M. C. DOYLE and M. D. RUGG	743	Recognition memory with and without retrieval of context: An event-related potential study
M. Y. YAZGAN, B. E. WEXLER, M. KINSBOURNE, B. PETERSON and J. F. LECKMAN	769	Functional significance of individual variations in callosal area
L. H. MOORE, W. S. BROWN, T. E. MARKEE, D. C. THEBERGE and J. C. ZVI	781	Bimanual coordination in dyslexic adults
Book Reviews	795	

Number 7

J. WHYTE, M. POLANSKY, M. FLEMING, H. BRANCH COSLETT and C. CAVALLUCCI	797	Sustained arousal and attention after traumatic brain injury
M. CASAGRANDE, C. VIOLANI, L. DE GENNARO, P. BRAIBANTI and M. BERTINI	815	Which hemisphere falls asleep first?
C. DUVELLEROY-HOMMET, P. GILLET, C. BILLARD, M. L. LOISEL, M. A. BARTHEZ, J. J. SANTINI and A. AUTRET	823	Study of unilateral hemisphere performance in children with developmental dysphasia
A. RICHARDS, C. C. FRENCH and R. DOWD	835	Hemisphere asymmetry and the processing of emotional words in anxiety
P. Y. PARKER and D. BENTON	843	Blood glucose levels selectively influence memory for word lists dichotically presented to the right ear
C. RODE, M. WAGNER and O. GÜNTÜRKÜN	855	Menstrual cycle affects functional cerebral asymmetries
F. EUSTACHE, P. RIOUX, B. DESGRANGES, G. MARCHAL, M.-C. PETIT-TABOUÉ, M. DARY, B. LECHEVALIER and J.-C. BARON	867	Healthy aging, memory subsystems and regional cerebral oxygen consumption
H. J. HEINZE and G. R. MANGUN	889	Electrophysiological signs of sustained and transient attention to spatial locations

Notes

J. R. HANLEY and F. GARD 909 A dissociation between developmental surface and phonological dyslexia in two undergraduate students

D. M. McBRIDE, B. J. CHERRY, D. W. KEE and P. L. NEALE 915 Lateralized dual task interference in left-handers: Initial value differences do not affect the outcome

Number 8

SPECIAL PAPERS FROM THE EDINBURGH SYMPOSIUM IN HONOUR OF MALCOLM A. JEEVES

A. D. MILNER and M. RUGG 921 Guest Editorial—Neuropsychological and Developmental Studies of the Corpus Callosum

G. BERLUCCHI, S. AGLIOTI, C. A. MARZI and G. TASSINARI 923 Corpus callosum and simple visuomotor integration

M. C. CORBALLIS 937 Visual integration in the split brain

G. M. INNOCENTI, D. AGGOUN-ZOUAOUI and P. LEHMANN 961 Cellular aspects of callosal connections and their development

M. LASSONDE, H. C. SAUERWEIN and F. LEPORE 989 Extent and limits of callosal plasticity: Presence of disconnection symptoms in callosal agenesis

General Papers

W. H. ZANGEMEISTER, K. SHERMAN and L. STARK 1009 Evidence for a global scanpath strategy in viewing abstract compared with realistic images

K. F. BERMAN, J. L. OSTREM, C. RANDOLPH, J. GOLD, T. E. GOLDBERG, R. COPPOLA, R. E. CARSON, P. HERSCOVITCH and D. R. WEINBERGER 1027 Physiological activation of a cortical network during performance of the Wisconsin Card Sorting Test: A positron emission tomography study

G. SCHLAUG, L. JÄNCKE, Y. HUANG, J. F. STAIGER and H. STEINMETZ 1047 Increased corpus callosum size in musicians

Book Reviews 1057

Erratum 1059

Number 9

Special Issue: The Biology and Neuropsychology of Consciousness

J. DELACOUR 1061 An introduction to the biology of consciousness

W. BECHTEL 1075 Consciousness: Perspectives from symbolic and connectionist AI

M. DONALD 1087 The neurobiology of human consciousness: An evolutionary approach

O. FLANAGAN 1103 Consciousness and the natural method

A. D. MILNER 1117 Cerebral correlates of visual awareness

M. D. RUGG 1131 Memory and consciousness: A selective review of issues and data

J. A. GRAY 1143 Dopamine release in the nucleus accumbens: The perspective from aberrations of consciousness in schizophrenia

D. PARÉ and R. LLINÁS 1155 Conscious and pre-conscious processes as seen from the standpoint of sleep–waking cycle neurophysiology

H. FLOHR 1169 An information processing theory of anaesthesia

H. J. MARKOWITSCH 1181 Cerebral bases of consciousness: A historical view

Number 10

A. KRITIKOS, C. LEAHY, J. L. BRADSHAW, R. IANSEK, J. G. PHILLIPS and J. A. BRADSHAW 1193 Contingent and non-contingent auditory cueing in Parkinson's disease

P. MARUFF, D. HAY, V. MALONE and J. CURRIE 1205 Asymmetries in the covert orienting of visual spatial attention in schizophrenia

K. BAYNES, C. M. WESSINGER, R. FENDRICH and M. S. GAZZANIGA 1225 The emergence of the capacity to name left visual field stimuli in a callosotomy patient: Implications for functional plasticity

A. DÉCARY and F. RICHER 1243 Response selection deficits in frontal excisions

N. M. HUNKIN and A. J. PARKIN 1255 The method of vanishing cues: An evaluation of its effectiveness in teaching memory-impaired individuals

L. NICKELS and D. HOWARD 1281 Aphasic naming: What matters?

F. B. GERSHBERG and A. P. SHIMAMURA 1305 Impaired use of organizational strategies in free recall following frontal lobe damage

Number 11

Special Issue: The Neuropsychology of Mental Imagery

GUEST EDITORS: M. Behrmann, S. M. Kosslyn and M. Jeannerod

PERSPECTIVE

S. M. KOSSLYN, M. BEHRMANN and M. JEANNEROD 1335 The cognitive neuroscience of mental imagery

LEARNING AND MEMORY

J. T. E. RICHARDSON 1345 The efficacy of imagery mnemonics in memory remediation

R. DE BENI and F. PAZZAGLIA 1359 Memory for different kinds of mental images: Role of contextual and autobiographic variables

PERCEPTION AND ACTION

G. GOLDENBERG, W. MÜLLBACHER and A. NOWAK 1373 Imagery without perception—A case study of anosognosia for cortical blindness

P. SERVOS and M. A. GOODALE 1383 Preserved visual imagery in visual form agnosia

J. ANNETT 1395 Motor imagery: Perception or action?

M. JEANNEROD 1419 Mental imagery in the motor context

J. D. SMITH, M. WILSON and D. REISBERG 1433 The role of subvocalization in auditory imagery

INFORMATION PROCESSING

M. J. FARAH — 1455 — Current issues in the neuropsychology of image generation

C. STANGALINO, C. SEMENZA and S. MONDINI — 1473 — Generating visual mental images: Deficit after brain damage

S. M. KOSSLYN, V. MALJKOVIC, S. E. HAMILTON, G. HORWITZ and W. L. THOMPSON — 1485 — Two types of image generation: Evidence for left and right hemisphere processes

M. DENIS, M.-R. GONÇALVES and D. MEMMI — 1511 — Mental scanning of visual images generated from verbal descriptions: Towards a model of image accuracy

A. P. GEORGOPOULOS and G. PELLIZZER — 1531 — The mental and the neural: Psychological and neural studies of mental rotation and memory scanning

REASONING

T. VECCHI, M. L. MONTICELLI and C. CORNOLDI — 1549 — Visuo-spatial working memory: Structures and variables affecting a capacity measure

G. GEMINIANI, E. BISIACH, A. BERTI and M. L. RUSCONI — 1565 — Analogical representation and language structure

AFTERWORD

L. A. COOPER — 1575 — Varieties of visual representation: How are we to analyze the concept of mental image?

Number 12

J. S. HOLDSTOCK, C. SHAW and J. P. AGGLETON — 1583 — The performance of amnesic subjects on tests of delayed matching-to-sample and delayed matching-to-position

G. HICKOK, E. KLIMA, M. KRITCHEVSKY and U. BELLUGI — 1597 — A case of 'sign blindness' following left occipital damage in a deaf signer

M. REITE, J. SHEEDER, P. TEALE, D. RICHARDSON, M. ADAMS and J. SIMON — 1607 — MEG based brain laterality: Sex differences in normal adults

T.-T. TSAI, A. LASKER and D. S. ZEE — 1617 — Visual attention in Huntington's disease: The effect of cueing on saccade latencies and manual reaction times

W. F. McKEEVER, K. S. SEITZ, A. J. KRUTSCH and P. L. VAN EYS — 1627 — On language laterality in normal dextrals and sinistrals: Results from the Bilateral Object naming Latency Task

C. CANTALUPO, A. BISAZZA and G. VALLORTIGARA — 1637 — Lateralization of predator-evasion response in a teleost fish (*Girardinus falcatus*)

J. D. W. GREENE, J. R. HODGES and A. D. BADDELEY — 1647 — Autobiographical memory and executive function in early dementia of Alzheimer type

L. GODBOUT and J. DOYON — 1671 — Mental representation of knowledge following frontal-lobe or postrolandic lesions

Notes

P. W. HALLIGAN and J. C. MARSHALL — 1697 — Lateral and radial neglect as a function of spatial position: A case study

C. PAPAGNO and C. MARSILE — 1703 — Transient left-sided alien hand with callosal and unilateral fronto-mesial damage: A case study

i — 1995 Volume Contents, Author Index and Key Word Index